EFFECTIVE DATE: August 16, 2002 EXPIRATION DATE: August 16, 2007

# MARSHALL POLICY DIRECTIVE

# AD01

# MSFC ENVIRONMENTAL HEALTH PROGRAM

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# DOCUMENT HISTORY LOG

Status (Baseline/ Revision/	Document	Effective	
Canceled)	Revision	Date	Description
Revision	D	12/6/99	History Log added with this revision; previous history contained in Directives Manager's Reference File. Document rewritten from MMI 1840.1C to an MPD.  Change 1.0 to read "This document
Revision	E	8/16/02	Change 1.0 to Feat Inits documental describes the MSFC Environmental Health Program;" OMEHS building inspection reports, and OMEHS MSFC offsite installation audit reports were added to the Records section; added to Section 4: MPG 1800.1, "Bloodborne Pathogens," MPG 1810.1, "MSFC Occupational Medicine," MPG 1840.1, "MSFC Confined Space Entries," MPD 1840.2, "MSFC Hearing Conservation Program," MPG 1840.2, "MSFC Hearing Conservation Program," MPG 1840.3, "MSFC Hearing Conservation Program," MPG 1840.3, "MSFC Respiratory Protection Program," MPG 1840.3, "MSFC Radiation Procedures and Guidelines," MPD 1860.1, "Laser Safety," MPD 1860.2, "Radiation Safety Program," added definition for Environmental Health survey in 6.2 and Material safety data sheet in 6.3; defined MSDS in 8.a.5; added in accordance with MPD 1840.2, "MSFC Hearing Conservation Program" in 8.a.8; replaced audits with "survey" in 8.a.9; added "Agreement between George C. Marshall Space Flight Center and Marshall Engineers and Scientist Association" to 8.a.11; deleted 8.a.13; deleted Standard Form 93, "Report of Medical History," MSFC Form 4066, "Interim Medical History," MSFC Form 2805, "MSFC Work History Questionnaire," MSFC Form 2801, "Employee Physical Examination," MSFC Form 3790, "Respiratory Protection Program Record," MSFC Form 3790-1, "Respiratory Protection Program Record for Army Support," MSFC Form 3790-1, "Respiratory Protection Program Record for Army Support," MSFC Form 3790-1, "Respiratory Protection Program Record for Army Support," MSFC Form 3790-1, "Respiratory Protection Program Record for Army Support," MSFC Form 3790-1, "Respiratory Protection Program Record for Army Support," MSFC Form 3790-1, "Respiratory Protection Program Record for Army Support," MSFC Form 3790-1, "Respiratory Protection Program Record for Army Support," MSFC Form 3790-1, "Respiratory Protection Program Record for Army Support, "MSFC Form 4045, "MSFC Medical Center Hearing History and Audiogram" from 9.0; added "OMEHS Building Inspection Report, OMEHS MSFC Of

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	The following records will be maintained and dispositioned by SM&A in accordance with MPG 8715.1, "Marshall Safety, Health and Environmental Program."  MSFC Form 4083, "Safety Personnel Certification" to 9.0

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#### 1. PURPOSE

This document describes the MSFC Environmental Health Program.

#### 2. APPLICABILITY

This program is applicable to all MSFC employees and operations.

#### 3. AUTHORITY

NPD 1820.1, "NASA Environmental Health Program"

#### 4. APPLICABLE DOCUMENTS

- a. MPG 1800.1, "Bloodborne Pathogens"
- b. MPG 1810.1, "MSFC Occupational Medicine"
- c. MPG 1840.1, "MSFC Confined Space Entries"
- d. MPD 1840.2, "MSFC Hearing Conservation Program"
- e. MPG 1840.2, "MSFC Hazard Communication Program"
- f. MPD 1840.3, "MSFC Respiratory Protection Program"
- g. MPG 1840.3, "MSFC Hazardous chemicals in Laboratories Protection Program"
- h. MPG 1860.1, "MSFC Radiation Procedures and Guidelines"
- i. MPD 1860.1, "Laser Safety"
- j. MPD 1860.2, "Radiation Safety Program"
- k. "Agreement between George C. Marshall Space Flight Center and Marshall Engineers and Scientist Association"
- 1. MWI 8715.4, "Personal Protective Equipment"
- m. 29 CFR 1910.1450, "Hazardous Chemicals in Laboratory Protection Program"

#### 5. REFERENCES

None

#### 6. DEFINITIONS

a. <u>Environmental Health</u>. The science devoted to the anticipation, recognition, evaluation, and control of those occupational and environmental hazards or stresses arising in or from the workplace that may cause sickness, impaired health and well-being, or significant discomfort and inefficiency among employees. The Environmental Health Program encompasses the following three major disciplines: Industrial Hygiene, Radiological Health, and Environmental Sanitation (activities relating to potable water, and food sanitation).

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- b. Environmental Health Survey. A walk-through inspection of a workplace to identify potential hazards or stressors that may cause sickness, impaired health and well being, or significant discomfort and inefficiency among employees. The hazards may include but not limited to, chemical, physical (e.g. noise, radiation and heat), and biological agents. Specific monitoring or analytical methods may be required to detect the extent of employee exposure. Also, activities, processes or projects may be observed to identify compliance with pertinent health regulations.
- c. <u>Material Safety Data Sheet(s) (MSDS)</u>. Written or printed informational material, supplied by chemical manufacturers/importers, that provides pertinent safety and health information concerning a hazardous chemical.

#### 7. POLICY

It is MSFC policy to provide employees with an environment in which occupational health hazards are identified, evaluated, eliminated and/or controlled in such a manner that personnel do not suffer adverse health effects as a result of their employment. Activities shall be conducted in a manner to conform to all applicable Federal, State and local regulatory requirements. Personnel exposures to chemical and/or physical agents shall at all times be restricted to levels as low as reasonably achievable.

#### 8. RESPONSIBILITIES

- a. <u>Occupational Medicine and Environmental Health Services</u>
  (OMEHS), by utilization of the disciplines of industrial hygiene, radiological health, and environmental health, will:
- (1) Perform surveys, studies, investigations, and appropriate exposure monitoring to identify, evaluate and control potential chemical, physical or biological hazards in the work environment, which can cause illness, injury, disease, or impaired well-being. All buildings shall be comprehensively surveyed, including exhaust ventilation surveys, at least once annually and results documented. Provide appropriate organizations/personnel with recommendation or notification of corrective action required to address identified discrepancies.
- (2) Maintain stop-work authority. Stop any operations that pose a clear, present, and unwarranted danger to any person or NASA property.

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- (3) Recommend appropriate physical examinations and diagnostic testing, as applicable, for all persons working in job categories requiring monitoring or medical surveillance.
- (4) Review plans, specifications, drawings, and other documentation for proposed changes to existing facilities or for the construction of new facilities where chemical, physical, biological, or other potential health hazards may exist.
- (5) Review Procurement Requests for acquisition of chemicals to assure that appropriate MSDS's are available at the Center.
- (6) Perform monthly inspections of food service outlets for proper sanitation, care, storage of food, and associated operations and document the findings.
- (7) Monitor potable water distribution and perform tests as necessary to ensure its potability in accordance with EPA requirements. Necessary testing will be performed in addition to that provided by the Army.
- (8) Administer a hearing conservation program in accordance with MPD 1840.2, MSFC Hearing Conservation Program, for employees whose occupation exposes or may expose them to risk of hearing damage or loss. Assure all hazardous noise areas are identified and appropriately posted.
- (9) Perform comprehensive environmental health surveys at MSFC component installations including, but not necessarily limited to, the following locations: The Michoud Assembly Facility at New Orleans, LA and the Solid Rocket Booster Refurbishment Facility at Kennedy Space Center, FL.
- (10) Interface frequently with the MSFC Safety and Mission Assurance Office and the Environmental Engineering Department on interrelated problems involving health, safety, and environmental matters.
- (11) Perform daily monitoring/analyses of asbestos air samplings as a support operation during asbestos abatement projects carried out by onsite contractors, as required. Provide oversight to asbestos-related activities performed by offsite contractors. Perform quarterly, annual, or as-needed routine air sampling in all occupied buildings as dictated by the type/condition of the asbestos-contaminated material and in accordance with the Agreement between George C. Marshall Space Flight Center and Marshall Engineers and Scientist Association. Perform bulk and air analyses for asbestos identification, including transmission

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electron microscopy (TEM), as required.

- (12) Perform monitoring/analysis of both air and bulk lead samplings as a support operation during construction/modification and mission support projects which are carried out by various onsite civil service or contractor personnel, and, at times, outside firms.
- (13) Serve as the MSFC facilitator the MSFC Hazard Communication Program operation, in accordance with MPG 1840.2, MSFC Hazard Communication Program including conducting training courses in Hazard Communication, maintaining a current master file of MSDS's, and supporting Center functions as required to assure compliance.
- (14) Provide guidance and recommendations concerning the selection, use, and control of personal protective equipment and in accordance with MWI 8715.4, "Personal Protective Equipment" as required.
- (15) Provide technical assistance to other organizations as needed regarding industrial hygiene, environmental health, and radiation safety matters.
- (16) Administer the MSFC Confined Space Entry Program in accordance with MPG 1840.1, MSFC Confined Space Entries. Perform confined space pre-entry evaluations/surveys as required to determine the presence of potential health hazards/hazardous atmospheres and issue appropriate entry permits.
- (17) Administer a comprehensive radiation safety and laser program in accordance with MPD 1860.2, "Radiation Safety Program" and MPD 1860.1, "Laser Safety."
- (18) Administer the MSFC Respiratory Protection Program and provide maintenance and repair services for all MSFC-owned respiratory protection equipment located at MSFC and applicable Redstone Arsenal environs in accordance with MPD 1840.3, "MSFC Respiratory Protection Program."
- (19) Provide consultative services and workplace evaluations regarding ergonomic-related issues.
- (20) Provide consultative services and support to onsite personnel working in laboratories. Support should be in accordance with OSHA's Hazardous Chemicals in Laboratory Protection Program.

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# b. The Safety and Mission Assurance (S&MA) Office will:

- (1) Refer observed industrial hygiene, environmental health and radiation health problems, issues, and inquiries to OMEHS.
- (2) Consult with OMEHS on any proposed new operations which may involve potential health hazards.

# c. Environmental Engineering Department will:

- (1) Refer observed industrial hygiene, environmental health and radiation health problems, issues, and inquiries to OMEHS.
- (2) Consult with OMEHS on any proposed new operations which may involve potential health hazards.

### d. Directors, Managers, Team Leads will:

- (1) Request industrial hygiene evaluation of all operations, projects, etc. where known or suspected health hazards exist.
- (2) Make every reasonable effort to fully implement the recommendations made as a result of an environmental health survey.
- (3) In cases where recommendations cannot be fully implemented, work with OMEHS in arriving at a mutually agreeable compromise.
- (4) Notify OMEHS in advance of new operations where known or suspected health hazards exist so that preventive medical measures can be incorporated, as required.

## e. Facilities Engineering Department will:

- (1) Give OMEHS an opportunity to review all construction plans prior to new construction or modification to existing facilities involving toxic materials, chemicals, extreme temperatures, or other health hazards.
- (2) Arrange for an OMEHS representative to discuss environmental health features with the architects/engineers.
- (3) Maintain official contact with the U. S. Army Missile Command and other Government agencies on matters delineated in accordance with the Army-MSFC Agreement.

#### 9. RECORDS

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- a. The following records will be maintained and dispositioned by OMEHS in accordance with NPG 1441.1.
- (1) MSFC Form 4367, "Airborne Fiber Sampling Sheet"
- (2) MSFC Form 4366, "Bulk Asbestos Analysis"
- (3) OMEHS Building Inspection Report
- (4) OMEHS Food Service Inspection Report
- (5) OMEHS MSFC Off-site Installation Audit report
- (6) OMEHS Air Monitoring reports
- b. The following records will be maintained and dispositioned by S&MA in accordance with MPG 8715.1, "Marshall Safety, Health and Environmental (SHE) Program."
- (1) MSFC Form 4083, "Safety Personnel Certification"

#### 10. MEASUREMENT

None

## 11. CANCELLATION

MPD 1840.1D dated December 6, 1999

Original signed by Axel Roth for

A. G. Stephenson Director